



**Public Water Supply
Survival Guide
for the
Consumer Confidence Report Rule**

Kansas Department of Health and Environment
Bureau of Water, Public Water Supply Section
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Topeka, Kansas 66612 - 1367

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OVERVIEW

This guidance document is provided by the State of Kansas as a “quick reference guide” to assist Public Water Supply Systems in complying with the Consumer Confidence Reports Rule (CCR Rule) requirements contained in the Kansas Primary Drinking Water Regulations. It presents a summary of the applicable regulatory requirements associated with the CCR Rule promulgated by the Environmental Protection Agency (EPA) on August 19, 1998 which has been primarily adopted by the Kansas Department of Health and Environment (KDHE). This guidance provides a summary of the applicable requirements and the dates by which the requirements must be met. It is a basic “what and when” summary for all public water systems. While all systems should feel comfortable using this document as a complete and accurate summary of CCR requirements, the applicable full legal language is contained in the Kansas Administrative Regulations in conjunction with the Code of Federal Regulation which KDHE has adopted by reference.

This document provides guidance to water suppliers on EPA’s current interpretation of the Consumer Confidence Report Rule. The guidance is designed to implement national policy on these issues. The document does not, however, substitute for EPA or KDHE regulations; nor is it a regulation itself. Thus, it cannot impose legally-binding requirements on EPA, the state of Kansas, or water suppliers, and may not apply to a particular situation based upon its circumstances. EPA and Kansas decision makers retain the discretion to adopt approaches on a case-by-case basis that differ from this guidance where appropriate. This survival guide applies to:

Systems: Community Water Supply Systems

Sources: All sources

Sizes: All sizes (having at least 10 service connections or serving 25 persons year round)

Treatment: All treatments

Specific questions regarding the information contained in this document, the Kansas Primary Drinking Water Regulations, or any other matters pertaining to drinking water and public water supply systems in Kansas should be directed to:

Kansas Department of Health and Environment

Bureau of Water, Public Water Supply Section

1000 SW Jackson, Suite 420

Topeka, Kansas 66612 - 1367

Phone: (785) 296 - 5503

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Additional information and e-mail addresses can be obtained by accessing KDHE’s web site at:

www.kdhe.state.ks.us

With the exception of the KDHE policies described in Section 4, reference is made to EPA guidance documents for specific details. Full citations to EPA manuals are given throughout this “Survival Guide”, along with shortened names by which these publications are identified whenever they are cited in this document. KDHE staff, public water supply system officials, and other interested parties can refer to these documents when examining the specific details of the Consumer Confidence Reports Rule. A handy EPA Quick Reference Guide on the Consumer Confidence Report Rule is also provided at the end of this survival guide.

ACRONYMS

AL – Action Level

BAT - Best Available Technology

CCR – Consumer Confidence Report

CFR - Code of Federal Regulations

CWS - Community Water System

D/DBPR - Disinfectants and Disinfection Byproducts Rule

DBPs - Disinfection Byproducts

DBPP - Disinfection Byproducts Precursor

EPA - United States Environmental Protection Agency

GWUDI - Ground Water Under the Direct Influence of Surface Water

HAA5s - Sum of five haloacetic acids (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, dibromoacetic acid)

KDHE - Kansas Department of Health and Environment

MCL - Maximum Contaminant Level

MCLG - Maximum Contaminant Level Goal

MDBP – Microbial and Disinfection Byproduct

mg/L - Milligrams per liter or parts per million (ppm)

MRDL - Maximum Residual Disinfectant Level (as mg/L)

N/A – Not Applicable

NTNCWS - Non-Transient Non-Community Water System

pCi/L – Picocuries per Liter

PPM – Parts Per Million

PPB – Parts Per Billion

PWS - Public Water System

SDWA - Safe Drinking Water Act

TNCWS - Transient Non-Community Water System

TOC - Total Organic Carbon

TT – Treatment Technique

TTHMs - Total trihalomethanes (Sum of chloroform, bromoform, chlorodibromomethane, and bromodichloromethane)

µg/L – Micrograms Per Liter or parts per billion (ppb)

DEFINITIONS

KDHE: The Kansas Department of Health and Environment is Kansas' primacy agency for the administration of the Safe Drinking Water Act. When the term "the State" is used in this survival guide, it refers to this agency.

EPA: The United States Environmental Protection Agency has federal oversight responsibility and authority regarding the administration and enforcement of the Safe Drinking Water Act. EPA prepares rules and technical / implementation guidance to implement the Safe Drinking Water Act through other agencies with primacy authority such as KDHE.

CCR: A Consumer Confidence Report is a brief summary on water quality required to be distributed by a community water supply system on an annual basis. A CCR contains basic information about the system's source(s) of water, the levels of contaminants in the finished water, compliance with drinking water rules, and educational information about contaminants and related health risks.

GWUDI: Systems utilizing "groundwater under the direct influence of surface water" (as previously determined by KDHE) are required to treat water from these sources as specified under the Surface Water Treatment Rule.

IESWTR: The Interim Enhanced Surface Water Treatment Rule, promulgated by EPA on December 16, 1998, is a companion rule to the Stage 1 Disinfection and Disinfection Byproducts Rule and a precursor to the Long Term 1 Enhanced Surface Water Treatment Rule. The IESWTR established enhanced requirements for filtration of surface and GWUDI sources. These two rules have interrelated provisions; actions initiated under one rule have the potential to effect compliance under the companion rule.

M/DBP Rules: The term "M/DBP Rules" stands for "Microbial / Disinfection Byproduct Rules" and refers to the TCR, SWTR, IESWTR, LT1ESWTR, LT2ESWTR, Stage 1 DDBPR, Stage 2 DDBPR, FBRR, and GWR collectively.

Stage 1 DDBP Rule: The Stage 1 Disinfectants and Disinfection Byproducts Rule, promulgated by EPA on December 16, 1998, is a companion rule to the Interim Enhanced Surface Water Treatment Rule. The Stage 1 DDBP Rule established enhanced requirements on the monitoring and treatment of disinfectants and disinfection residuals in system distribution systems. These two rules have interrelated provisions; actions initiated under one rule have the potential to effect compliance under the companion rule.

SWTR: The Surface Water Treatment Rule, promulgated by EPA on June 29, 1989, was the precursor to enhanced requirements established under the Interim Enhanced Surface Water Treatment Rule and the Stage 1 Disinfectants and Disinfection Byproducts Rule. It established filtration and disinfection requirements that provide for continuous protection from pathological microbes potentially present in source waters.

TCR: The Total Coliform Rule, promulgated by EPA on June 29, 1989, was a precursor to enhanced requirements established under the Interim Enhanced Surface Water Treatment Rule and the Stage 1 Disinfectants and Disinfection Byproducts Rule. The TCR established health goals and legal limits for total coliform levels in drinking water (as indicator organisms), requires the conduct of routine sanitary surveys of systems, and specifies the type and frequency of testing which systems must perform.

Introduction

This document is for water suppliers who are preparing drinking water Consumer Confidence Reports (CCRs). This survival guide explains all of the requirements for report content, format, and distribution that the U.S. EPA established in the CCR Rule, published in the Federal Register on August 19, 1998, which was subsequently adopted by KDHE and published in the Kansas Register on September 16, 2004.

CCRs will provide an opportunity for water system operators to communicate important information about the drinking water and system to consumers. The reports will not only help consumers to make informed choices that affect the health of themselves and their families, they will encourage consumers to consider the challenges of delivering safe drinking water. Educated consumers will be more likely to help you protect drinking water sources and be more understanding of the occasional need to upgrade the treatment facilities that make their water safe.

1. What is a Consumer Confidence Report?

In 1996, the U.S. Congress amended the Safe Drinking Water Act (SDWA). One of the provisions that Congress added to the law was a requirement that all community water systems provide to their customers a brief annual water quality report. Congress specified certain content for the reports, and required water systems to distribute these reports to all of their customers. CCRs summarize information that water systems already collect to comply with other regulations. **You will not need to engage in any new monitoring for the CCR.**

Your report will contain basic information on the source(s) of your water, the levels of any contaminants detected in finished water, compliance with other drinking water rules, and brief educational material about why there are contaminants in water and how immuno-compromised people can lower their risk of infection from microbial contaminants. EPA is expecting that most reports will fit on one piece of paper, however based on the number of mandatory items it may take more than one piece of paper. When preparing your CCR keep in mind that a report that contains *too much* information, or is full of technical jargon, will discourage consumers from learning the basics about their water.

2. Why are drinking water systems required to prepare them?

The guiding principle behind consumer confidence reports is that all people have the right to know what is in their drinking water and where it comes from. CCRs are not the only part of the revised SDWA that encourage water systems to educate and involve the public. SDWA requires EPA to revise its public notification requirements to speed up notification of violations that present serious health risks, and simplify notification of other violations. SDWA also requires systems and states to involve citizens in deliberations regarding use of the drinking water state revolving fund and in planning for source water assessments. Consumers who are familiar with the basic drinking water information in CCRs will be able to participate more effectively in these processes.

3. Who must prepare a Consumer Confidence Report?

In Kansas, every community water system that has at least 10 service connections or serves at least 25 residents year round must prepare and distribute a consumer confidence report. A water wholesaler that sells water to another water system must provide the retailer with monitoring data and other information that will enable the retailer to produce a CCR, unless the two systems make a different contractual agreement. **Wholesalers are not responsible for creating the report for the retailer, nor are they responsible for providing data on contaminants that the retailer monitors (such as lead or trihalomethanes).** Regardless of who produces the report, the retail system is responsible for ensuring that its customers receive a report containing all required content.

In some cases, a retailer will contract with the wholesaler to produce the report. There are several options in this relationship. If the retailer did need to add data, it might choose to reprint the wholesaler's CCR with a new title/letterhead and extra data. Either of these methods is acceptable.

What resources are available to help systems produce their reports?

- KDHE will be providing monitoring and compliance data and helping systems to create useful CCRs.
- KDHE has a “fill-in-the-blank” template that systems may use to create a simple but effective CCR. This template is located on the Public Water Supply section website at www.kdhe.state.ks.us/pws
- The Safe Drinking Water Hotline (800-426-4791) is a resource for health-related questions and water quality issues.
- The American Water Works Association (AWWA), Association of Metropolitan Waterworks Associations (AMWA), and the National Rural Water Association (NRWA) and their local associations are encouraging their members to make the CCR part of an overall communications strategy, and are providing various resources to help systems achieve that goal.

4. When must a water system distribute its Consumer Confidence Report?

- The reports are based on calendar year data. Reports are due by July 1 of each year.
- Wholesalers must deliver information to their buyers by April 1 of each year (unless there is a separate agreement), and then annually thereafter. A new community water system must deliver its first report by July 1 of the year after its first full calendar year in operation, and then annually thereafter.
- Community water systems are additionally required to provide a copy of the completed report and a signed Certification of Delivery to the KDHE by July 1 of each year.

5. What information must be included in the Consumer Confidence Report?

KDHE's regulations set a baseline for the reports. KDHE encourages all systems to enhance or adjust the content of their reports to suit local conditions. If you think that an added picture or graph would help your customers to better understand the information that you're providing, then by all means, add it. If your customers would benefit from an explanation for why you do additional monitoring or have added new treatment facilities, then definitely tell them. As long as any additional information is consistent with, and not detracting from, the purpose of the report, you may add it.

Most customers are interested in a clear statement of whether or not their drinking water meets all the relevant standards. Although it is not mandated by the CCR regulations, something you can do for your customers is to include a few sentences at the beginning of the report explaining the steps you take to protect their drinking water and telling them whether they should feel confident drinking the water that you provide.

Basic Consumer Confidence Report Requirements (please read on for important details and recommended enhancements)

Water System Information

- Name / Phone number of contact person
- Information on public participation opportunities
- Information for non-english speaking populations, if applicable

Sources of Water

- Type, name, and location of water sources
- Availability of source water assessment
- Information on significant sources of contamination, if available

Definitions: i.e. MCL, MCLG, others as needed

Detected Contaminants

- Table summarizing data on detected regulated and unregulated contaminants
- Known, or likely, source of each detected contaminant
- Health effects language and explanation [for MCL violations]
- Information on *Cryptosporidium*, radon, and other contaminants, if applicable

Compliance with other Drinking Water Regulations

- Explanation of violations, potential health effects, and steps taken to correct violations
- Explanation of variance / exemption, if applicable

Required Educational Information

- Explanation of contaminants and their presence in drinking water
- Warning for vulnerable populations about *Cryptosporidium*
- Informational statements on arsenic, nitrate, and lead, if necessary

KDHE requires the following information in every Consumer Confidence Report:

A. Basic information about the water system

Identify the name of your system, and include the following information about it:

- The name and telephone number of a person at the water system who can provide additional information and answer questions about the report.
- A listing of known opportunities for public participation in decision making processes that affect drinking water quality (for example, time and place of regularly-scheduled board meetings). If you do not have regularly-scheduled meetings, you may want to tell customers how they can get information when meetings are announced.

B. Source(s) of water

You must report the type of water (ground water, surface water, or a combination of the two) and the commonly-used names (if such a name exists) and locations of water source(s).

Explaining your various interconnections and back-up sources may be difficult, but it is important that consumers understand that the source of their water may vary during the year. Remember to include in your table of detected contaminants monitoring data for these “extra” sources if you use water from them. If your situation is complex, you may need to work with someone from your state drinking water program to decide what information belongs in your report.

Once a source water assessment has been completed, you must notify consumers of the availability of the assessment and tell them where to find a copy. When you have your source water assessment, you need to include in the report a brief summary of your source water’s susceptibility to contamination based on the findings of the source water assessment. KDHE will provide this information to you after the assessment is completed. Take advantage of this opportunity to educate your customers about the impacts that they have on the quality of their water. You may want to provide pollution prevention tips or information on local watershed cleanup activities.

C. Definitions

The CCR must include definitions of key regulatory terms that consumers will need in order to understand the contaminant data. The definitions in the reports must be those listed below.

- **Maximum Contaminant Level or MCL:** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **Maximum Contaminant Level Goal or MCLG:** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

The following definitions need to be included only if your report contains information on a contaminant that is regulated by an “Action Level” (such as Lead and Copper) or a “Treatment Technique” (such as Surface Water Treatment and Lead and Copper).

- **Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water.

The following definition for variances and exemptions must be **included only** if a water system operates under a variance or exemption. **Since there are currently no systems in Kansas that are operating under variances or exemptions you will likely not ever need to include this definition.**

- **Variances and Exemptions:** KDHE or EPA permission not to meet an MCL or a treatment technique under certain conditions.

D. Levels of detected contaminants

An important part of the report is the table that shows the highest level of each detected contaminant (the highest number you reported to KDHE to determine compliance) and the range of levels of that contaminant that you found during the year, if you took more than one sample. For each detected contaminant, the table will also provide: the associated Maximum Contaminant Level (MCL) and Maximum Contaminant Level Goal (MCLG), and the likely or known source of that contaminant in drinking water.

A detected contaminant is any contaminant detected at or above the Kansas Reporting Level. (Non-detects are usually shown on lab reports as “<” (less than) the reporting level; detected contaminants are those that do not have a “less than” sign in front of the reported number (See Appendix B). If you are unsure of the Maximum Detection Limit (MDL) for a contaminant, and your lab reports a value greater than zero, include that in the report.

Do not include in the table contaminants that are not detected or are detected below the MDL. If you sometimes distribute water from emergency or back-up sources, you generally need to include monitoring results from these sources in the ranges of detections that you report in the table, unless the source’s contribution is insignificant (e.g., one day per year).

The main table must contain only data for regulated contaminants (contaminants subject to a MCL, TT, or AL), and unregulated contaminants for which monitoring is required by EPA under 40 CFR 141.40 (a.k.a. the Information Collection Rule (ICR) - see below for special instructions about *Cryptosporidium* and radon). Only the results of ICR finished water monitoring should be included in the table.

Reporting of secondary MCLs must be done on a separate table outside the main table. Any additional monitoring data should be reported in another area of the CCR, clearly separated from the regulated contaminant data (see separate description below.)

To ensure that consumers can properly compare detected contaminant levels with their MCLs, the table must display the MCL in units that express it as a number greater than 1.0. The MCLG and level of the detected contaminant must be reported in those same units. For example, atrazine is traditionally reported in mg/L. The MCL for atrazine is 0.003 mg/L. If your system detected atrazine at 0.0003 mg/L, it would be more difficult for consumers to understand at a glance that your water is 10 times below the MCL than if you were to report the MCL as 3 ppb and the detected level as 0.3 ppb. Appendix A shows the conversion factor for each contaminant.

You should generally report data from monitoring completed during the past calendar year. When you are on monitoring schedules that are less than once per year, include in the table contaminant data collected in the most recent testing period. If you monitor once every three years for a contaminant and detected that contaminant in the last sample, report the same detection level each of the three years until you take a new sample. **If the report contains detection data that is not from the calendar year indicated, the table must show the date of monitoring and the report must also contain a brief statement explaining that the data presented is from the most recent monitoring done in compliance with regulations.**

EXAMPLE: The Kansas Department of Health and Environment allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data [for inorganic contaminants etc....], though accurate, is more than one year old.

You do not need to report monitoring results that are more than five years old. The results of monitoring done under the Information Collection Rule must be reported only for five years from the date of the last sample or until the detected contaminant becomes regulated and subject to regular monitoring requirements.

For each detected contaminant, the table must contain:

- The MCL, expressed as a number greater than 1.0 (see Appendix A). If the contaminant is regulated by a treatment technique, put the letters “TT” in place of the MCL. If the contaminant is regulated by an action level, specify the “AL” applicable to that contaminant.
- The MCLG for that contaminant expressed in the same units as the MCL (see App. A).
- The level of the contaminant expressed in the same units as the MCL and MCLG:
 - If compliance is determined annually or less frequently (for example, many inorganic and chemical contaminants), include the highest detected level at any sampling point and the range of detected levels, if applicable.
 - If compliance is determined by a running annual average of all the samples taken from a sampling point (for example, chemical contaminants), include the highest average of any of the sampling points (as reported to the state for compliance purposes) and the range of detections at all sampling points (See Appendix C).

- If compliance is determined by a running annual average of all samples at all sampling points (for example, TTHMs), include the average of all samples and the range of detected levels (See Appendix C).
- For turbidity as a TT for systems that filter and use turbidity as an indicator of filtration performance), include the highest single measurement and the lowest monthly percentage of samples meeting the turbidity limits specified in K.A.R. 28-15-21 for the relevant filtration technology. Explain the reasons for measuring turbidity.

EXAMPLE: Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of our filtration system effectiveness.

- For lead and copper, include the 90th percentile value from the most recent monitoring and the number of sampling sites exceeding this value. Do not report parametric data.
 - For total coliforms (systems that collect fewer than 40 samples per month), include the highest number of positive samples collected in one month.
 - For total coliforms (systems that collect 40 or more samples per month), include the highest percentage of positive samples collected in one month.
 - For fecal coliforms and *E. coli*, include the number of positive samples taken that year.
 - If you detect beta particles in your water at or below 50 pCi/L, you should report the detected level in pCi/l. So that consumers may have a standard against which to compare that detected level, include "50*" in the MCL column (rather than the actual MCL of 4 mrem/year) and include a footnote to the table that says "*EPA considers 50 pCi/l to be the level of concern for beta particles." If you detect beta particles above 50 pCi/l, you must determine the actual radioactive constituents present in the water to calculate the dose exposure level in mrem/ year, and must report both the detected level and MCL as mrem/year.
- The likely source of that contaminant, according to the best information that you have. Due to security reasons, the report need not identify a specific point source, but it must include one or more of the typical sources listed in Appendix A that is most applicable to your situation.

For any contaminant detected in violation of a MCL or a TT, or exceeding an AL, clearly highlight in the table the violation or exceedance. This indication could, for example, take the form of a different color type, a larger or heavier font, or a large star. Near by, but not in, the table, include an explanation of the length of the violation / exceedance, the potential adverse health effects (from Appendix A), and actions you took to address the violation / exceedance.

If you've detected unregulated contaminants for which state or federal rules require monitoring (for example, 40 CFR 141.40), except *Cryptosporidium*, include the average of all of the year's monitoring results and the range of detections. We encourage you to include more information on the potential health effects of these contaminants if the results may indicate a health concern. We consider any detection above a proposed MCL or health advisory level to indicate concern. You can call the

Safe Drinking Water Hotline (800-426-4791) for this information or find it on EPA's web site at <http://www.epa.gov/safewater/hfacts.html>. For these contaminants, EPA recommends that the report contain an explanation of the significance of the results, noting the existence of the health advisory or proposed MCL.

You may wish to explain the reasons for unregulated contaminant monitoring with a statement like the following:

EXAMPLE: Unregulated contaminant monitoring helps EPA determine where certain contaminants occur and whether it may need to regulate contaminants in the future.

If your system distributes water through two physically disconnected distribution systems from different raw water sources, include in the table separate columns for detection data for each service area. Also, describe the area served by each distribution system.

It is unnecessary to report contaminants that were not tested for or not detected.

Reporting on contaminants outside of the table:

If the system has performed monitoring that indicates the presence of *Cryptosporidium* either in its source water or its finished water, include in the report:

- A summary of the results of the monitoring. You may choose whether or not to report the actual analytical results as a part of this summary.
- An explanation of the significance of the results. Tell customers if they need to be concerned by the information that the CCR provides.

EXAMPLE: Cryptosporidium is a microbial parasite found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring of source water and/or finished water indicates the presence of these organisms. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested for it to cause disease, and it may be spread through other means than drinking water.

If the system has performed monitoring that indicates the presence of radon in its finished water, include in the report:

- The results of monitoring (the analytical values reported by the lab).
- An explanation of the significance of the results. Tell customers if they need to be concerned by the information that the CCR provides.

EXAMPLE: Radon is a radioactive gas that occurs naturally in some ground water. It poses a health risk when the gas is released from water into air, as occurs during showering, bathing, or washing dishes and clothes. Radon in drinking water is a relatively small part of the total radon in air. Other sources of radon gas are soil and cigarettes. Radon gas that is inhaled has been linked to lung cancer, however, it is not clear what level of radon in your drinking water contributes to this health effect. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, contact the KDHE Radon Section, (785) 296-1593 or call EPA's Radon Hotline (800-SOS-RADON).

If the system has performed other monitoring voluntarily and this monitoring indicates the presence of unregulated contaminants in the finished water, you should report any results that may indicate a health concern. We consider any detection above a proposed MCL or health advisory level to indicate concern. You can call the Safe Drinking Water Hotline (800-426-4791) for this information or find it on EPA's web site at <http://www.epa.gov/safewater/hfacts.html>. For these contaminants, EPA recommends that the report contain:

- The results of monitoring; and
- An explanation of the significance of the results, noting the existence of the health advisory or proposed MCL.

E. Compliance with Other Drinking Water Regulations

If, during the reporting period, the community water system was in violation of one of the following national primary drinking water regulatory requirements, your CCR must describe the violation(s). The description must include a clear and readily understandable explanation of the violation, potential adverse health effects (if any), and the steps the system has taken to correct the violation.

➤ Monitoring and reporting of compliance data:

If your system failed to take the sample on time, the report should say "health effects unknown". If your system took the samples accurately and on-time, but mailed the results late, you don't need to discuss health effects.

➤ Treatment techniques:

- Filtration and disinfection (Surface Water Treatment Rule requirements):

If the violation was a failure to install adequate filtration or disinfection equipment or processes, or if there was a failure of equipment, include the following language:

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

- Lead and copper control requirements:

If the violation was a failure to meet corrosion control, source water treatment, or lead service line requirements, you must include the health effects language for lead or copper listed in Appendix A.

- Treatment techniques for Acrylamide and Epichlorohydrin:

If you violate either treatment technique, you must include the relevant health effects language from Appendix A.

➤ Record keeping requirements:

- Provide a brief explanation of the violation and efforts to address the issues.
- **A copy of the CCR Certification must be retained in your records for no less than 3 years.**

➤ Special monitoring requirements:

- Provide a brief explanation of the violation and efforts to address the issues.

➤ Violation of the terms of a variance, an exemption, or an administrative or judicial order:

- Provide a brief explanation of the violation and efforts to address the issues.

➤ Systems operating under a variance or exemption:

- If the system is operating under a variance or exemption, its CCR must include a section that explains that the system is operating under a variance or exemption, the date that it was issued, why it was granted, when it is up for renewal, and a status report on what the system is doing to remedy the problem. **Since there are currently no systems in Kansas that are operating under variances or exemptions you will likely not ever need to include this explanation.**

F. Educational Information

Every CCR must prominently display the following statements:

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Your report must contain basic information about drinking water contaminants. Use the following language (or you may write your own comparable language that better fits your specific local situation):

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.*
- *inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.*
- *pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.*
- *organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.*
- *radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.*

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Requirements for Nitrate, Lead, Arsenic, and Trihalomethanes:

If your water system detected:

- Nitrate above 5 mg/L (50 % of the MCL), but below the MCL;
- Arsenic above 25 Fg/L (50 % of the MCL, but below the MCL) [* **Effective January 23, 2006, the MCL for Arsenic will be 10 Fg/L** – after January 23, 2006, arsenic detected above 10 ppb and up to and including 50 ppb must include the arsenic health effects language prescribed in Appendix A].
- Lead above the Action Level of 15 ppb in more than 5%, and up to and including 10%, of the homes sampled [**this doesn't apply if your system samples fewer than 20 sites**], you must include in your report a special educational statement about that contaminant. You may use the language below or write your own, which KDHE must approve.

Nitrate: *Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.*

Arsenic: *While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.*

Lead: *Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).*

If you believe that the language above is not relevant to your situation, you may adjust the language in consultation with KDHE.

If your system has a running annual average for trihalomethanes above the MCL of 80 ppb, you must include the health effects statement for TTHMs contained in Appendix A. You should explain to your customers how you plan to reduce this level.

Other educational information:

You are not limited to providing only the required information in your report. The only limitation on this information is that it must not interfere with the educational purpose of the report. You may use the report to explain your treatment processes or source water protection efforts. You

may include a statement from the mayor or general manager. Or you could educate your customers about water conservation, taste and odor issues, affiliations with programs such as the Partnership for Safe Water, and so forth. You may want to provide the address for KDHE's drinking water web site (<http://www.kdhe.state.ks.us/pws/>) EPA's drinking water web site (<http://www.epa.gov/safewater/>).

6. What should the Consumer Confidence Report look like?

You don't need a fancy computer or a graphic designer to produce a CCR that is easy to read and inviting to your customers. The best way to design your report is to spend some time looking at other reports. See what catches your eye, and copy it. A few things to consider:

- Write short sentences. Keep your paragraphs short, too.
- Don't make your text size too small. You might want to squeeze a few extra sentences in your report, but if you add too much, people might ignore the entire report.
- Give a draft of your CCR to relatives or friends who aren't drinking water experts and ask them if it makes sense. Ask customers for their comments when you publish the report.
- Don't distract from your main message with graphics and/or pictures that don't complement your report.
- Be as simple and straight forward as possible. Avoid acronyms, initials, and jargon.
- Consider printing the report on recycled paper and taking other steps to make the report "environmentally friendly". If you hope to get your customers involved in protecting source water, set a good example for them.

7. How must a water system distribute its Consumer Confidence Report?

You must mail or deliver a copy of your consumer confidence report to each of your customers, and make a good faith effort to get reports to non-bill-paying consumers. Distribute your report by July 1. You may include the reports with water bills, if feasible, or you may send the reports as separate mailers. **Keep your report on file for three years, and make it available to the public upon request.**

Send a copy of the report and the Certificate of Delivery to the KDHE Public Water Supply Section, 1000 SW Jackson - Suite 420, Topeka, KS 66612-1367 at the same time that you mail the report to your customers. Send a copy to any other state agency that the supervisor of the KDHE Public Water Supply Section identifies. We also encourage you to send copies to local health departments, as well as local TV and radio stations and newspapers.

It is in your system's interest to spread the word about the quality of its water. Since many consumers of your water may not receive bills (people such as apartment renters), you must make serious and "good faith" efforts to reach non bill paying consumers. A "good faith" effort means selecting the most appropriate method(s) to reach those consumers from the following menu of options which KDHE recommends. Those options include but are not limited to:

- posting the report on the Internet
- mailing the report to all postal patrons
- advertising the availability of the report in newspapers, TV, and radio
- publishing the report in a local newspaper
- posting the report in public places such as cafeterias of public buildings, libraries, churches, schools, and nursing homes
- delivering multiple reports for distribution by single-billing customers such as apartment buildings, retirement housing complexes or large private employers
- delivering the report to community organizations

Systems that serve 100,000 or more people must post their reports on the Internet. EPA encourages other systems to post their reports as well. Many local governments have sites where you could post your report, even if your system itself does not have a site. EPA will make links from its website (<http://www.epa.gov/safewater/>) to all the reports of which it is aware.

For systems that have a large proportion of *non-English speaking customers*, the EPA requires the inclusion of information in the appropriate language expressing the importance of the report or to offer additional information in the specific language.

EXAMPLE: This report contains very important information about your drinking water. Translate it, or speak with someone who understands it.

In Spanish, this is written as:

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

In French, this is written as:

Ce rapport contient des informations importantes sur votre eau potable. Traduisez-le ou parlez en avec quelqu'un qui le comprend bien.

APPENDIX A TO SUBPART O OF PART 141 – REGULATED CONTAMINANTS

AL = Action Level

MCL = Maximum Contaminant Level

MCLG = Maximum Contaminant Level Goal

MFL = Million Fibers per Liter

MRDL = Maximum Residual Disinfectant Level

MRDLG = Maximum Residual Disinfectant Level Goal

mrem/year = millirems per year (a measure of radiation absorbed by the body)

N/A = Not Applicable

NTU = Nephelometric Turbidity Units (a measure of water clarity)

pCi/L = picocuries per liter (a measure of radioactivity)

ppm = parts per million (or milligrams per liter)

ppb = parts per billion (or micrograms per liter)

ppt = parts per trillion (or nanograms per liter)

ppq = parts per quadrillion (or picograms per liter)

TT = Treatment Technique

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
Microbiological Contaminants						
Total Coliform Bacteria	MCL: (systems that collect \$40 samples/ month) 5% of monthly samples are positive; (systems that collect < 40 samples/ month) 1 positive monthly sample.			0	Naturally present in the environment	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
Fecal coliform and <i>E. coli</i>	0		0	0	Human and animal fecal waste	Fecal coliforms and <i>E. coli</i> are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.
Total organic carbon (ppm)	TT	-	TT	n/a	Naturally present in the environment	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.
Turbidity (NTU)	TT	-	TT	n/a	Soil runoff	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
Beta/photon emitters (mrem/yr)	4 mrem/yr	-	4	0	Decay of natural and man-made deposits	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta particle and photon radioactivity in excess of the MCL over many years may have an increased risk of getting cancer.
Alpha emitters (pCi/l)	15 pCi/l	-	15	0	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Combined radium (pCi/l)	5 pCi/l	-	5	0	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium (pCi/L)	30 ^F g/l	-	30	0	Erosion of natural deposits	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.
Inorganic Contaminants						
Antimony (ppb)	.006	1000	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder	Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.
Arsenic (ppb)	0.010 ¹	1000	10 ¹	0 ¹	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
Asbestos (MFL)	7 MFL	-	7	7	Decay of asbestos cement water mains; Erosion of natural deposits	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.
Barium (ppm)	2	-	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Beryllium (ppb)	.004	1000	4	4	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries	Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.

¹These arsenic values are effective January 23, 2006. Until then, the MCL is 0.050 mg/l and there is no MCLG.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
Cadmium (ppb)	.005	1000	5	5	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints	Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.
Chromium (ppb)	.1	1000	100	100	Discharge from steel and pulp mills; Erosion of natural deposits	Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.
Copper (ppm)	AL=1.3	-	AL=1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Cyanide (ppb)	.2	1000	200	200	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories	Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.
Fluoride (ppm)	4	-	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.
Lead (ppb)	AL=.015	1000	AL=15	0	Corrosion of household plumbing systems; Erosion of natural deposits	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
Mercury [inorganic] (ppb)	.002	1000	2	2	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland	Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.
Nitrate (ppm)	10	-	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
Nitrite (ppm)	1	-	1	1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
Selenium (ppb)	.05	1000	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.
Thallium (ppb)	.002	1000	2	0.5	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories	Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.
Synthetic Organic Contaminants including Pesticides and Herbicides						
2,4-D (ppb)	.07	1000	70	70	Runoff from herbicide used on row crops	Some people who drink water containing the weed killer 2,4-D well in excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands.
2,4,5-TP [Silvex](ppb)	.05	1000	50	50	Residue of banned herbicide	Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.
Acrylamide	TT	-	TT	0	Added to water during sewage/ wastewater treatment	Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.
Alachlor (ppb)	.002	1000	2	0	Runoff from herbicide used on row crops	Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.
Atrazine (ppb)	.003	1000	3	3	Runoff from herbicide used on row crops	Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.
Benzo(a)pyrene [PAH] (nanograms/l)	.0002	1,000,000	200	0	Leaching from linings of water storage tanks and distribution lines	Some people who drink water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.
Carbofuran (ppb)	.04	1000	40	40	Leaching of soil fumigant used on rice and alfalfa	Some people who drink water containing carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
Chlordane (ppb)	.002	1000	2	0	Residue of banned termiticide	Some people who drink water containing chlordane in excess of the MCL over many years could experience problems with their liver or nervous system, and may have an increased risk of getting cancer.
Dalapon (ppb)	.2	1000	200	200	Runoff from herbicide used on rights of way	Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.
Di(2-ethylhexyl) adipate (ppb)	.4	1000	400	400	Discharge from chemical factories	Some people who drink water containing di (2-ethylhexyl) adipate well in excess of the MCL over many years could experience general toxic effects and/or reproductive difficulties.
Di(2-ethylhexyl) phthalate (ppb)	.006	1000	6	0	Discharge from rubber and chemical factories	Some people who drink water containing di (2-ethylhexyl) phthalate in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.
Dibromochloropropane (ppt)	.0002	1,000,000	200	0	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards	Some people who drink water containing DBCP in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
Dinoseb (ppb)	.007	1000	7	7	Runoff from herbicide used on soybeans and vegetables	Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.
Diquat (ppb)	.02	1000	20	20	Runoff from herbicide use	Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.
Dioxin [2,3,7,8-TCDD] (ppq)	.00000003	1,000,000,000	30	0	Emissions from waste incineration and other combustion; Discharge from chemical factories	Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
Endothall (ppb)	.1	1000	100	100	Runoff from herbicide use	Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.
Endrin (ppb)	.002	1000	2	2	Residue of banned insecticide	Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.
Epichlorohydrin	TT	-	TT	0	Discharge from industrial chemical factories; An impurity of some water treatment chemicals	Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
Ethylene dibromide (ppt)	.00005	1,000,000	50	0	Discharge from petroleum refineries	Some who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, kidneys, and may have an increased risk of getting cancer.
Glyphosate (ppb)	.7	1000	700	700	Runoff from herbicide use	Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.
Heptachlor (ppt)	.0004	1,000,000	400	0	Residue of banned pesticide	Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.
Heptachlor epoxide (ppt)	.0002	1,000,000	200	0	Breakdown of heptachlor	Some people who drink water containing heptachlor epoxide in excess of the MCL over many years could experience liver damage, and may have an increased risk of getting cancer.
Hexachlorobenzene (ppb)	.001	1000	1	0	Discharge from metal refineries and agricultural chemical factories	Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or adverse reproductive effects, and may have an increased risk of getting cancer.
Hexachlorocyclopentadiene (ppb)	.05	1000	50	50	Discharge from chemical factories	Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL over many years could have problems with kidneys or stomach.
Lindane (ppt)	.0002	1,000,000	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens	Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.
Methoxychlor (ppb)	.04	1000	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock	Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.
Oxamyl [Vydate] (ppb)	.2	1000	200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes	Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.
PCBs [Polychlorinated biphenyls] (ppt)	.0005	1,000,000	500	0	Runoff from landfills; Discharge of waste chemicals	Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thymus gland, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.
Pentachlorophenol (ppb)	.001	1000	1	0	Discharge from wood preserving factories	Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
Picloram (ppb)	.5	1000	500	500	Herbicide runoff	Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.
Simazine (ppb)	.004	1000	4	4	Herbicide runoff	Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.
Toxaphene (ppb)	.003	1000	3	0	Runoff/leaching from insecticide used on cotton and cattle	Some people who drink water containing toxaphene in excess of the MCL over many years could have problems with their kidneys, liver, or thyroid, and may have an increased risk of getting cancer.
Volatile Organic Contaminants						
Benzene (ppb)	.005	1000	5	0	Discharge from factories; Leaching from gas storage tanks and landfills	Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.
Bromate (ppb)	.010	1000	10	0	By-product of drinking water chlorination	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.
Carbon tetrachloride (ppb)	.005	1000	5	0	Discharge from chemical plants and other industrial activities	Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
Chloramines (ppm)	MRDL = 4	-	MRDL = 4	MRDLG = 4	Water additive used to control microbes	Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.
Chlorine (ppm)	MRDL = 4	-	MRDL = 4	MRDLG = 4	Water additive used to control microbes	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.
Chlorite (ppm)	1	-	1	0.8	By-product of drinking water chlorination	Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
Chloride dioxide (ppb)	MRDL = .8	1000	MRDL = 800	MRDLG = 800	Water additive used to control microbes	Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia.
Chlorobenzene (ppb)	.1	1000	100	100	Discharge from chemical and agricultural chemical factories	Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.
o-Dichlorobenzene (ppb)	.6	1000	600	600	Discharge from industrial chemical factories	Some people who drink water containing o-dichlorobenzene in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory systems.
p-Dichlorobenzene (ppb)	.075	1000	75	75	Discharge from industrial chemical factories	Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to the liver, kidneys, spleen, or blood.
1,2-Dichloroethane (ppb)	.005	1000	5	0	Discharge from industrial chemical factories	Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.
1,1-Dichloroethylene (ppb)	.007	1000	7	7	Discharge from industrial chemical factories	Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
cis-1,2-Dichloroethylene (ppb)	.07	1000	70	70	Discharge from industrial chemical factories	Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
trans-1,2-Dichloroethylene (ppb)	.1	1000	100	100	Discharge from industrial chemical factories	Some people who drink water containing trans-1,2-dichloroethylene well in excess of the MCL over many years could experience problems with their liver.
Dichloromethane (ppb)	.005	1000	5	0	Discharge from pharmaceutical and chemical factories	Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.
1,2-Dichloropropane (ppb)	.005	1000	5	0	Discharge from industrial chemical factories	Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.
Ethylbenzene (ppb)	.7	1000	700	700	Discharge from petroleum refineries	Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.
Haloacetic Acids (HAA) (ppb)	.060	1000	60	n/a	By-product of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
Styrene (ppb)	.1	1000	100	100	Discharge from rubber and plastic factories; Leaching from landfills	Some people who drink water containing styrene well in excess of the MCL over many years could have problems with their liver, kidneys, or circulatory system.
Tetrachloroethylene (ppb)	.005	1000	5	0	Discharge from factories and dry cleaners	Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.
1,2,4-Trichlorobenzene (ppb)	.07	1000	70	70	Discharge from textile-finishing factories	Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.
1,1,1-Trichloroethane (ppb)	.2	1000	200	200	Discharge from metal degreasing sites and other factories	Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.
1,1,2-Trichloroethane (ppb)	.005	1000	5	3	Discharge from industrial chemical factories	Some people who drink water containing 1,1,2-trichloroethane well in excess of the MCL over many years could have problems with their liver, kidneys, or immune systems.
Trichloroethylene (ppb)	.005	1000	5	0	Discharge from metal degreasing sites and other factories	Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
TTHMs [Total trihalomethanes] (ppb)	0.080	1000	80	n/a	By-product of drinking water chlorination	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
Toluene (ppm)	1	-	1	1	Discharge from petroleum factories	Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.
Vinyl Chloride (ppb)	.002	1000	2	0	Leaching from PVC piping; Discharge from plastics factories	Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.
Xylenes (ppm)	10	-	10	10	Discharge from petroleum factories; Discharge from chemical factories	Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.

Your Water System Name

Consumer Confidence Report – 2005

Covering Calendar Year – 2004



This brochure is a snapshot of the quality of the water that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies. It's important that customers be aware of the efforts that are made continually improve their water system. To learn more, please attend any of the regularly scheduled meetings, which are held (provide the date, time and location of meetings).

For more information please contact, (provide the local name and telephone number for the individual who can answer questions regarding your water system).

Your water comes from (Provide the type of water: surface water or groundwater and the commonly used name of the source. Also, if you purchase water from another water supply system, identify which system(s) you purchase water from). We treat your water to remove several contaminants and we also add disinfectant to protect you against microbial contaminants. The Safe Drinking Water Act (SDWA) required states to develop a Source Water Assessment (SWA) for each public water supply that treats and distributes raw source water in order to identify potential contamination sources. The state has completed an assessment of our source water. For results of the assessment, please contact us or view the results online at www.kdhe.state.ks.us/nps.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water before we treat it include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides, which may come from a variety of sources such as storm water run off, agriculture, and residential uses.

Radioactive contaminants, which can be naturally occurring or the result of mining activity.

Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. We treat our water according to EPA's regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Water Quality Data

The tables on the following pages list all of the drinking water contaminants, which were detected during the 2004 calendar year. The presence of these contaminants does not necessarily indicate that the water poses a health risk. Unless noted, the data presented in this table is from testing done January 1 - December 31, 2004. The State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old. **The bottom line is that the water that is provided to you is safe.**

Terms & Abbreviations

Maximum Contaminant Level Goal (MCLG): the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): the highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs allow for a margin of safety.

Secondary Contaminants: contaminants commonly found in drinking water which are not regulated.

Action Level (AL): the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT): a required process intended to reduce the level of contaminants in water

ppb: parts per billion or micrograms per liter (µg/L) **ppm:** parts per million or milligrams per liter (mg/L)

N/A: not applicable **ND:** non-detect at testing limit **pCi/L:** picocuries per liter (a measure of radiation)

TESTING RESULTS FOR: (Identify the System(s) Which Completed the Testing)

MICROBIOLOGICAL	DATE	RESULT	RESULT	UNIT	MCL	MCLG	Violation (Yes/No)	TYPICAL SOURCE
Coliform Bacteria				# samples	0	0		Naturally present in the environment
Turbidity				NTU	0.3	N/A		Soil runoff
Chlorine / Chloramines				ppm	4.0	4.0		Water additive used to control microbes

REGULATED CONTAMINANTS	DATE	RESULT	RESULT	UNIT	MCL	MCLG	Violation (Yes/No)	TYPICAL SOURCE
Arsenic				ppb	50	50		Erosion of natural deposits
Barium				ppm	2	2		Erosion of natural deposits
Selenium				ppb	50	50		Erosion of natural deposits
Fluoride				ppm	4	4		Erosion of natural deposits
Nitrate				ppm	10	10		Erosion of natural deposits
Total Organic Carbon				Ratio	1.0	N/A		Naturally present in the environment
Total Trihalomethanes				ppb	80	0		By-product of drinking water disinfection
Haloacetic Acids				ppb	60	0		By-product of drinking water disinfection

90th PERCENTILE	DATE	RESULT	RESULT	UNIT	AL	Sites over AL	Violation (Yes/No)	TYPICAL SOURCE
Lead				ppb	AL=15			Corrosion of household plumbing system
Copper				ppm	AL=1.3			Corrosion of household plumbing system

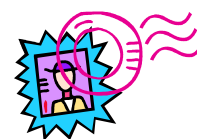
RADIONUCLIDES	DATE	RESULT	RESULT	UNIT	MCL	MCLG	Violation (Yes/No)	TYPICAL SOURCE
Gross Alpha				pCi/L	15	0		Erosion of natural deposits
Combined Radium				pCi/L	5	0		Erosion of natural deposits
Uranium				ppb	30	0		Erosion of natural deposits

SECONDARY CONTAMINANTS	DATE	RESULT	RESULT	UNIT	SMCL			TYPICAL SOURCE
Calcium				ppm	75-200			Erosion of natural deposits
Magnesium				ppm	50-150			Erosion of natural deposits
Sodium				ppm	100			Erosion of natural deposits
Potassium				ppm	100			Erosion of natural deposits
Chloride				ppm	250			Erosion of natural deposits
Sulfate				ppm	250			Erosion of natural deposits
Total Hardness				ppm	400			Erosion of natural deposits
Alkalinity as CaCO3				ppm	60-300			Erosion of natural deposits
pH				pH units	6.5-8.5			Erosion of natural deposits
Specific Conductivity				umho/L	1500			Erosion of natural deposits
Total Dissolved Solids				ppm	500			Erosion of natural deposits
Total Phosphorus (P)				ppm	5			Erosion of natural deposits
Silica				ppm	50			Erosion of natural deposits
Iron				ppm	0.3			Erosion of natural deposits
Manganese				ppm	N/A			Erosion of natural deposits

INCLUDE ANY ADDITIONAL REQUIRED HEALTH EFFECTS LANGUAGE OR VIOLATION NOTICE IN THIS SECTION

Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public.

CITY of
ADDRESS
CITY, KS ZIP CODE



CUSTOMER
ADDRESS
CITY, KS ZIP CODE



K A N S A S

RODERICK L. BREMBY, SECRETARY

KATHLEEN SEBELIUS, GOVERNOR

DEPARTMENT OF HEALTH AND ENVIRONMENT

CONSUMER CONFIDENCE REPORT
CERTIFICATE OF DELIVERY

PWS NAME: _____

PWS ID: _____

KDHE DISTRICT: _____

The community public water supply system named above hereby confirms that its consumer confidence report, covering calendar year 2004 was distributed to customers and the local county health department on _____ (date), and appropriate notices of availability have been given. Further, the system certifies that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the Kansas Department of Health and Environment.

Certified by: Name: _____

Title: _____

Address: _____ City: _____ Zip: _____

Phone No: _____

E-mail: _____

Date: _____

Return to: Patti Croy
Bureau of Water
Public Water Supply Section
1000 SW Jackson; Suite 420
Topeka, KS 66612-1367

DIVISION OF ENVIRONMENT
Bureau of Water-Public Water Supply Section
CURTIS STATE OFFICE BUILDING, 1000 SW JACKSON ST., STE. 420, TOPEKA, KS 66612-1367
Voice 785-296-5514 Fax 785-296-5509 <http://www.kdhe.state.ks.us/>

Consumer Confidence Report Rule: A Quick Reference Guide

Overview of the Rule

Title	Consumer Confidence Report (CCR) Rule, 40 CFR, Part 141, Subpart O.
Purpose	Improve public health protection by providing educational material to allow consumers to make educated decisions regarding any potential health risks pertaining to the quality, treatment, and management of their drinking water supply.
General Description	The CCR Rule requires all community water systems to prepare and distribute a brief annual water quality report summarizing information regarding source, any detected contaminants, compliance, and educational information.
Utilities Covered	Community water systems (CWSs), all size categories.

Public Health Related Benefits

Implementation of the CCR Rule will result in . . .

- ▶ Increased consumer knowledge of drinking water quality, sources, susceptibility, treatment, and drinking water supply management.
- ▶ Increased awareness of consumers to potential health risks, so they may make informed decisions to reduce those risks, including taking steps toward protecting their water supply.
- ▶ Increased dialogue with drinking water utilities and increased understanding of consumers to take steps toward active participation in decisions that affect public health.

Annual Requirements

CWSs with 10 or more connections or serving at least 25 year round residents must prepare and distribute a CCR to all billing units or service connections.	<ul style="list-style-type: none"> ▶ April 1 - Deadline for CWS that sells water to another CWS to deliver the information necessary for the buyer CWS to prepare their CCR (req. outlined in 40 CFR 141.152). ▶ July 1 - Deadline for annual distribution of CCR to customers and State or local primacy agency for report covering January 1 - December 31 of previous calendar year. ▶ July 1 - <i>Deadline for annual submission of proof of delivery to State.</i> ▶ A system serving 100,000 or more persons must also post its current year's report on a publicly accessible site on the Internet. Many systems choose to post their reports at the following EPA website http://yosemite.epa.gov/ogwdw/ccr.nsf/america. ▶ All systems must make copies of the report available on request.
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Small Water System Flexibility *(NOT APPLICABLE IN KANSAS)*

- ▶ With the permission of the Governor of a State (or designee), or where the tribe has primacy, in lieu of mailing, systems serving fewer than 10,000 persons may publish their CCR in a local newspaper.*
- ▶ With the permission of the Governor of a State (or designee), or where the tribe has primacy, in lieu of mailing and/or publication, systems serving 500 or fewer persons may provide a notice stating the report is available on request.*

*Questions regarding whether the necessary permission has been granted should be addressed to the local State or primacy agency.



Major Provisions to be Included in the CCR

Water System Information

	Name/phone number of contact person.
	Information on public participation opportunities (time and place for meetings or hearings).
	Information for non-English speaking populations (if applicable).

Source of Water

	Type (ex. groundwater or surface water), commonly used name, and location of water sources (ex. Potomac River, Snake River Plain Aquifer, etc.) (Exact locations/coordinates of wells and intakes should not be included for security reasons.)
	Availability of source water assessment.
	Brief summary on potential sources of contamination (if available).

Definitions

	Maximum Contaminant Level (MCL).
	Maximum Contaminant Level Goal (MCLG).
	Treatment Technique (TT) (if applicable).
	Maximum Residual Disinfectant Level (MRDL) (if applicable).
	Maximum Residual Disinfectant Level Goal (MRDLG) (if applicable).
	Action Level (AL) (if applicable).
	Variances and Exemptions (if applicable).

Detected Contaminants

	Table summarizing data on detected regulated and unregulated contaminants that were detected during the last round of sampling.
	Known or likely source of each detected contaminant.
	Health effects language for any violations, exceedances or when Arsenic levels are > 0.01 mg/L or ≤ 0.05 mg/L.
	Information on <i>Cryptosporidium</i> , Radon, and other contaminants (if applicable).

Compliance with Drinking Water Regulations

	Explanation of violations, length of violations, potential health effects, and steps taken to correct the violations.
	Explanation of variance/exemption (if applicable).

Required Educational Information

	Explanation of contaminants and their presence in drinking water including bottled water.
	Warning for vulnerable or immunocompromised populations about <i>Cryptosporidium</i> .
	Informational statements on arsenic, nitrate, lead, and TTHM (if applicable).
	EPA's Safe Drinking Water Hotline Number of (1-800-426-4791).

For additional information on the CCR Rule

Call the Safe Drinking Water Hotline at 1-800-426-4791; visit the EPA website at www.epa.gov/safewater/ccr1.html; log onto the CCRiWriter website to use EPA's template at www.CCRiWriter.com; view 40 CFR 141 subpart O; or contact your State or local primacy agency's drinking water representative.